

INTERVIEW SUMMARY

Applicants would like to thank the Examiner for the courtesies he has shown them and their attorney in the interview held on February 1, 2007 at the U.S. Patent and Trademark Office. Applicant Dr. Sidney M. Baker and Applicants' attorney Aaron Haleva discussed the substantive differences between the prior art and the claimed invention with Examiner Vanel Frenel. Dr. Baker demonstrated an exemplary embodiment of the invention as implemented in an Internet-based application, and Applicants' attorney and the Examiner further discussed proposed amendments to the independent claims that would capture the comprehensive health description according to the present invention.

REMARKS

This Preliminary Amendment is submitted with a Request for Continued Examination. Claims 1-7 and 9-18 were pending in the application. Claim 2 has been canceled without prejudice, and claims 1, 3, 4, 7, 9-13, 15 and 16 have been amended. Claims 1, 7, 13 and 15 are the independent claims. The following remarks, along with the present claim amendments, are believed to be fully responsive to the Final Office Action mailed on August 11, 2006.

Claims 1-7 and 9-18 stand rejected under 35 U.S.C. § 103 as unpatentable over *Pattichis* (Neural Network Models in EMG Diagnosis; May 5, 1995) and *Gulati* (U.S. Patent No. 6,780,589) in view of *Goldenberg* (U.S. Published Application No. 2002/0065682).

Applicants respectfully submit that claims 1, 7, 13 and 15, as amended, as well as the claims dependent upon them, are patentable over the cited prior art, as discussed in the personal interview of February 1, 2007.

Unlike prior art systems, the system and methods of claims 1, 7, 13 and 15 elicit from a user and/or store, as the case may be, a *comprehensive snapshot* of such user's health by automatically doing what health care professionals used to routinely value -- but no longer do -- as the foundation of all health care -- "listening to the patient." Such a substantially complete description of a user's health can be articulated by a user, for example, using the terms of a novel comprehensive medico-health taxonomy. Such a taxonomy is designed to be understandable by non-medical professionals and to also be ultimately transformable into a multidimensional data structure capable of being stored in a computer for the purposes of searching and analysis.

Moreover, such a taxonomy is optimized for storage and processing in a large database of similar comprehensive health descriptions of humans, inasmuch as the elements of the taxonomy are substantially orthogonal to one another.

As described in the specification, such a taxonomy can be used as the common semantic reference frame in which a user can be queried as to her health status and in whose terms she can answer. As described in the Specification, such a "taxonomy is a language or lexicon that is detailed enough so as to allow the system to store a comprehensive description of the user which facilitates finding a medically meaningful similar users, and at the same time comprises language that is natural enough to allow even the uneducated and unsophisticated user to meaningfully articulate his or her own medical state of being." *Specification* at ¶ 59. In one exemplary embodiment, the task of inputting responses to questions can be facilitated by prompting a user to articulate their health profile, and then enter any medical/health events via an age/gender appropriate graphic interface. *Specification* at ¶ 133, Fig. 34; ¶ 140, Figs. 18-22. An exemplary taxonomy is provided in Exhibit A-1. *Specification* at Exhibit A-1. Thus, as noted during the interview, for ease of computing at the system level, a processed set of a user's responses

organized according to the taxonomy can be mapped to a substantially orthogonal basis set using, for example, a set of “system-function-where” triples as provided in Exhibit A-3 of the Specification (as claimed in claim 18).

As discussed in the personal interview, none of the references cited against the claimed invention teach or suggest an invention capable of generating a substantially comprehensive medico-health snapshot of a user by probing a user to articulate responses in terms of a defined substantially comprehensive medico-health taxonomy. *Pattichis* and *Gulati*, are medical testing systems that cover a relatively limited number of human medical systems as opposed to a substantially comprehensive medico-health snapshot of an individual. Moreover, none of these references teaches or suggests prompting a user to provide data sufficient to comprise a substantially complete description of his health, wherein the data is conceptually organized according to a defined substantially comprehensive medico-health taxonomy, and wherein such data is stored in the memory in a multidimensional data structure whose dimensions reflect said taxonomy.

Thus, none of the cited references allow a system to simply “listen to the patient” and “let the data speak.”

Pattichis does not suggest or disclose using a defined taxonomy to prompt a user to articulate their complete health snapshot. *Pattichis* teaches the use of electromyography (EMG) and pattern recognition algorithms to diagnose neuromuscular disorders. *Pattichis* at 486. EMG is useful for diagnosing neuromuscular disorders because it measures the electrical activity in muscles. Electrical signals are acquired with needles inserted into the muscle itself. *Pattichis* at 486. No part of *Pattichis* teaches or suggests querying a user in terms of a substantially comprehensive taxonomy. *Pattichis* is concerned only with measuring simple muscle activity

via electrodes – not by drawing on the wealth of information that the patient has in his mind about his condition and his general health state in a systematized manner. Furthermore, *Pattichis* is unconcerned with any medico-health information outside the realm of neuromuscular disorders. This is quite a significant departure from a comprehensive description of the totality of a human's health, encompassing both body and soul. *Pattichis*, therefore, does not teach or suggest the systems or methods of the independent claims.

Neither *Gulati* nor *Goldenberg* are seen as curing the deficiencies of *Pattichis* as a reference against claims 1, 7, 13 and 15, as amended.

Gulati was cited against the pending claims as allegedly analyzing the medical state of a human being. However, *Gulati* does not teach or suggest articulating a substantially comprehensive medico-health snapshot of a user by probing a user to articulate responses in terms of a defined substantially comprehensive medico-health taxonomy. *Gulati* is directed to a system that exposes genetic mutations by measuring the hybridization of oligonucleotides in a biological sample to produce dot spectrograms and statistically processing the dot spectrograms. *Gulati* at 4:35-54. Furthermore, the *Gulati* system is limited to discovering genetic mutations. Measuring the hybridization of oligonucleotides is a specialized biochemical test that acquires medical data in the conventional manner. The method of *Gulati* is vastly different than presenting a series of queries to a user based on a specific comprehensive medical taxonomy and then letting the data speak. *Gulati* does not seek any articulation from a user as to his own medico-health state of being.

Similarly, *Goldenberg* does not, whether alone or in combination with either *Pattichis* or *Gulati*, teach or even suggest prompting a user to provide data sufficient to comprise a substantially complete description of his health, wherein the data is conceptually organized

according to a defined substantially comprehensive medico-health taxonomy, and wherein such data is stored in the memory in a multidimensional data structure whose dimensions reflect said taxonomy. *Goldenberg* is a web-based medical information and medical referral system. If it cannot provide a user an answer to a specific query by a user – which must be phrased using standard medical categories and must be answered, if at all, using such standard medical categories, and is restricted to a specific medical problem or system, not a substantially comprehensive expression of the user's health – it finds him or her a potential doctor. *Goldenberg* at ¶ 33. Thus, *Goldenberg* appears to be a referral service for physicians operating under the guise of offering medical “information” and a “virtual doctor.” *Id.* at ¶¶ 35-38.

Thus, the cited references, whether taken alone or in any combination, do not teach or suggest the systems and methods of claims 1, 7, 13 and 15, as amended, and thus these claims are urged as patentable over the cited prior art. For similar reasons, dependent claims 3-6, 9-12 and 14-15 are also urged as patentable over the cited prior art. Therefore, Applicants respectfully submit that the pending claims are now in condition for allowance. Favorable reconsideration is requested.

CONCLUSION

In view of the remarks herein, Applicant believe that each ground for rejection made in the instant application has been successfully overcome or obviated, and that all pending claims are now allowable. Withdrawal of the Examiner's rejections, and allowance of the current application are respectfully requested.

No additional fee is believed necessary for entry of this Preliminary Amendment or the

accompanying RCE. However, the Commissioner is hereby authorized to charge any additional fee to Deposit Account No. 50-0540.

Dated: February 12, 2007

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Aaron S. Haleva', is written over a horizontal line.

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